AP Computer Science Principles Summer Assignment: Mrs. Whitlock, G127

Website: http://www.cswithwhitlock.com/

- **Read all instructions and follow the directions given.**
- **Your summer assignment consists of two parts and will count as your first minor assessment grade.**
- **All work should be HANDWRITTEN and submitted by Friday, August 10, 2018.**
- **Please email me for any questions (whitlock@fultonschools.org)**
- **If you enroll in the course after the first day of school, you will have two weeks to complete the assignment.**

Part I: You will read Chapter 1 from the book, *Blown to Bits,* by Abelson, Ledeen and Lewis and answer the attached questions. (50 points)

This book is available as a free download from http://www.bitsbook.com/wp-content/uploads/2008/12/B2B_3.pdf or you can download one chapter at a time from http://www.bitsbook.com/excerpts/

You can also check out a hardcopy of the book from me during the last week of school

The questions are on page 3 of this document.

**See notes on written responses on page 2

Part II: Using the APCSP course description, answer the questions on page 4 of this document (50 points)

The course description can be found at: https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-computer-science-principles-course-and-exam-description.pdf

**See notes on written responses on page 2

Notes on written responses:

Technical writing is a large part of APCSP. I expect all written assignments to be in complete sentences, use correct grammar and use correct punctuation. I also expect well designed, clear, concise answers with supporting details.

Sample prompt: "Give at least one specific example of an aspect or experience in your personal life that is related to the chapter."

Example of a poor response:

I used search engines all the time.

Example of an AP level response:

The authors center this chapter on how search engines are manipulated to serve government and political party's wishes and ideals. They explain how a Google search for "democracy" yields different results in China versus the United States. Obviously both countries have very different connotations of democracy, and they want people to think the way they do. So, the same Google search alters depending on the zone and country we live in. I personally saw this during my trip to India. In the U.S, I had searched up information about Jayalalitha, an Indian central minister. The readings were generally neutral, exposing the good and bad of her life. However, when I opened the same search in India, almost all of the articles listed were highly biased, exposing only the good in her. Thus, country matters, and I learnt that even Google is subject to political strategies.

Part I: Blown to Bits, Chapter 1 questions (50 points)

Read Chapter One and answer the following questions. Answers must be handwritten and labeled on a separate piece of paper.

1. What happened to Tanya Rider?

2. How can cell phones be used to track your location?

3. What conflicting factors delayed Tanya's rescue?

The authors introduce 7 separate **Koans** – truths- about digital information technology. Describe what each Koan means AND give a specific example of how each concept relates to you personally.

4. Koan #1: "It's All Just Bits."
5. Koan #2: Perfection is Normal
6. Koan #3: There is Want in the Midst of Plenty
7. Koan #4: Processing is Power
8. Koan #5: More of the Same can be a Whole New Thing
9. Koan #6: Nothing Goes Away
10. Koan #7: Bits Move Faster than Thought

11. Explain Moore's Law in your own words. Is it still relevant?

12. The authors conclude the chapter with the argument that…
    a. Technology *per se* is neither good nor bad, and
    b. New technologies usually mean new opportunities and new challenges.

    To illustrate these concepts, research and answer these questions…

    1. What was the Arab Spring?
    2. Who is Megan Meier?
    3. Using the concepts from 12a & 12b above, describe the role that social media played in both the Arab Spring and with Megan Meier.

Part II: Course Description questions. Answers must be handwritten and labeled on a separate piece of paper.

Course description can be found at: https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-computer-science-principles-course-and-exam-description.pdf

1. How is the APCSP course assessed? How many parts are there? Give a brief description of each part and the associated percentage of the overall score that each part represents.

2. Identify AND describe (in your own words) each of the computational thinking practices that we will practice in APCSP.

3.   Identify AND describe (in your own words) the seven Big Ideas of APCSP.

4.   Identify AND describe (in your own words) the steps involved in the software development process (pages 44 – 45). Be sure to discuss the iterative and incremental nature of this process.